

Application Serial No. 10/522,110
Reply to office action of May 14, 2008

PATENT
Docket: CU-4057

REMARKS/ARGUMENTS

Reconsideration is respectfully requested.

Claims 1-20 are pending before this amendment with claims 4-5 having been previously withdrawn. By the present amendment, claims 2-5 and 13-20 canceled without prejudice; claims 1 and 6-12 are amended. No new matter has been added.

In the office action (page 3), claims 6-7, 10 and 15-16 stand objected to because of a number of informalities.

Regarding, claims 6-7, the applicants have subsequently followed the advise of the examiner by replacing the abbreviation phrase "A w/o suspending..." with the phrase "An oil suspension ...".

Regarding claim 10, the applicants have subsequently amended claim 10 by correcting the transplantation typographical error noted by the examiner.

Regarding claims 15-16, the applicants have subsequently canceled these claims without prejudice.

Therefore, the applicants submit that the basis for these objections has been removed. Accordingly, the examiner is respectfully requested to withdraw this objection to the presently claimed invention.

In the office action (page 3), claims 1 and 9-20 stand rejected under 35 U.S.C. § 112 ¶2 as being indefinite.

The applicants respectfully disagree and submit that the claims, as they now stand, are in condition for allowance.

Regarding claim 1, the applicants have subsequently amended claim 1 to require that –the compound of riboflavin derivatives is selected from the group consisting of 5'-

Application Serial No. 10/522,110
Reply to office action of May 14, 2008

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Docket: CU-4057

lauric acid monester of riboflavin, isobutyrate of riboflavin, riboflavin-2,6-dimethoxybenzoate, and adamantane acid ester of riboflavin-- to more clearly define the claimed subject matter. Accordingly, the applicants submit that claim 1 is definite.

Regarding claims 9-12, the applicants agree with the examiner's suggestion in amending claim 9-12 to be methods in order to more definitely claim what the applicants intend to claim. Accordingly, the applicants submit that claims 9-12 are definite.

Regarding claim 13-20, the applicants have subsequently canceled claims 13-20 without prejudice.

Therefore, the applicants submit that the basis for this indefinite rejection to the presently claimed invention has been removed. Accordingly, the examiner is respectfully requested to withdraw this indefinite rejection to the claims.

In the office action (page 4), claims 9-20 stand rejected under 35 U.S.C. § 101 as lacking utility because the claimed method does not set forth any steps involving the process.

The applicants respectfully disagree and submit that the claims, as they now stand, are in condition for allowance.

Regarding claims 9-12, the applicants agree with the examiner's suggestion in amending claim 9-12 to be methods in order to more definitely claim the invention as a method embodiment. Further, the applicants have amended claims 9-12 to require method steps. Accordingly, the applicants submit that claims 9-12 have utility.

Regarding claim 13-20, the applicants have subsequently canceled claims 13-20 without prejudice.

Therefore, the applicants submit that the basis for this lack of utility rejection to

Application Serial No. 10/522,110
Reply to office action of May 14, 2008

PATENT
Docket: CU-4057

the presently claimed invention has been removed. Accordingly, the examiner is respectfully requested to withdraw this utility rejection to the claims.

In the office action (page 5), claims 9-11, 13, 15 and 17 stand rejected under 35 U.S.C. § 112 ¶1 as lacking enablement.

The applicants respectfully disagree and submit that the claims, as they now stand, are in condition for allowance.

As pointed out above, claims 9-11 have been subsequently amended to be method claims.

Since the examiner acknowledges that the specification is enable for treating ariboflavinosis, digestive tract catarrh, and persistent oral ulcer, then the applicant points out that newly amended method claims 9-11 are enabled.

Regarding claim 13, 15 and 17, the applicants have subsequently canceled claims 13, 15 and 17 without prejudice.

Therefore, the applicants submit that the basis for this lack of enablement rejection to the presently claimed invention has been removed. Accordingly, the examiner is respectfully requested to withdraw this lack of enablement rejection to the claims.

In the office action (page 8), claims 1-2 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. Edwards (J. Photochem. Photobiol. B: Biol. 1999). The "et al." suffix is omitted in a reference name.

The applicants respectfully disagree and submit that the claims, as they now stand, are in condition for allowance.

Regarding claim 1, as pointed out above, the applicants have subsequently

Application Serial No. 10/522,110
Reply to office action of May 14, 2008

PATENT
Docket: CU-4057

amended claim 1 to require that the compound of riboflavin derivatives is selected from the group consisting of 5'-lauric acid monester of riboflavin, isobutyrate of riboflavin, riboflavin-2,6-dimethoxybenzoate, and adamantane acid ester of riboflavin-- to more clearly define the claimed subject matter. Further, the applicants can find nothing within Edwards that teaches or even hints at any of these new limitations that are now required in claim 1.

Regarding claim 2, the applicants have subsequently canceled claim 2 without prejudice.

Since a reference must teach "each and every" claimed limitation to anticipate a claimed invention, then Edwards cannot support an anticipation rejection to the presently claimed invention.

Therefore, the applicants submit that the basis for this anticipation rejection to the presently claimed invention has been removed. Accordingly, the examiner is respectfully requested to withdraw this anticipation rejection.

In the office action (page 10), claims 9, 11, 13 and 17 stand rejected under 35 U.S.C. § 103(a) as being obvious over Edwards in view of Okuda (Chem. Pharm. Bull. 1980) and Chandra (U.S. Patent No. 6,565,891). Also in the office action (page 12), claims 10 and 15 stand rejected under 35 U.S.C. § 103(a) as being obvious over Edwards in view of Okuda and Burzynski (PG Publication No. US 2003/0105104) with the teaching so McCarthy (Oral Oncology vol.34, pp. 484-490, 1998). The "et al." suffix is omitted in a reference name. Also in the office action (page 15), claims 12 and 19 stand rejected under 35 U.S.C. § 103(a) as being obvious over Edwards in view of Nagatomo (Acta Med. Biol. 1982). The "et al." suffix is omitted in a reference name.

Application Serial No. 10/522,110
Reply to office action of May 14, 2008

PATENT
Docket: CU-4057

The applicants respectfully disagree and submit that the claims, as they now stand, are in condition for allowance.

As noted above, the applicants have subsequently amended claim 1 to require that --the compound of riboflavin derivatives is selected from the group consisting of 5'-lauric acid monester of riboflavin, isobutyrate of riboflavin, riboflavin-2,6-dimethoxybenzoate, and adamantane acid ester of riboflavin--. Since all of the method claims require using a preparation containing the compound of claim 1, the all of the presently claimed method claims require using compounds of riboflavin derivatives that are selected from the group consisting of 5'-lauric acid monester of riboflavin, isobutyrate of riboflavin, riboflavin-2,6-dimethoxybenzoate, and adamantane acid ester of riboflavin.

As noted above Edwards does not teach or even hint at any of these claimed riboflavin derivatives of claim 1. It follows that Edwards cannot teach or suggest using a preparation containing these riboflavin derivatives. Therefore, Edwards is unlike the presently claimed invention.

Okuda is also unlike the presently claimed invention. At most Okuda teaches ariboflavinosis-curing effects of riboflavin-5'-monobutyrate (R-MB) and riboflavin tetrabutryrate (R-TB). Okuda does not teach or even hint at any of these claimed riboflavin derivatives of claim 1 in which method claims 9-12 require. It follows that Okuda cannot teach or suggest using a preparation containing these riboflavin derivatives. Therefore, Okuda is unlike the presently claimed invention. Further combining Okuda to Edwards does not cure the deficiency of Edwards in replicating the presently claimed invention.

Application Serial No. 10/522,110
Reply to office action of May 14, 2008

PATENT
Docket: CU-4057

Chandra is also unlike the presently claimed invention. At most Chandra teaches a nutritional supplement for improving the immunological status of children in which the nutritional supplement contains riboflavin.). Chandra does not teach or even hint at any of these claimed riboflavin derivatives of claim 1 in which method claims 9-12 require. It follows that Chandra cannot teach or suggest using a preparation containing these riboflavin derivatives. Therefore, Chandra is unlike the presently claimed invention. Further combining Chandra with the Edwards and Okuda does not cure the deficiency of Edwards and Okuda in replicating the presently claimed invention.

Burzynski is also unlike the presently claimed invention. At most Burzynski teaches a method for alleviating or reducing the toxic, nutritional and metabolic disturbances associated with cancer and cancer chemotherapy by administering a composition comprising riboflavin. Burzynski does not teach or even hint at any of these claimed riboflavin derivatives of claim 1 in which method claims 9-12 require. It follows that Burzynski cannot teach or suggest using a preparation containing these riboflavin derivatives. Therefore, Burzynski is also unlike the presently claimed invention. Further combining Burzynski with the Edwards and Okuda does not cure the deficiency of Edwards and Okuda in replicating the presently claimed invention.

McCarthy is also unlike the presently claimed invention. At most McCarthy teaches risk factors associated with mucositis in cancer patients receiving 5-fluorouracil. McCarthy does not teach or even hint at any of these claimed riboflavin derivatives of claim 1 in which method claims 9-12 require. It follows that McCarthy cannot teach or suggest using a preparation containing these riboflavin derivatives. Therefore, McCarthy is also unlike the presently claimed invention. Further combining McCarthy

Application Serial No. 10/522,110
Reply to office action of May 14, 2008

PATENT
Docket: CU-4057

with Burzynski with the Edwards, Okuda and Burzynski does not cure the deficiency of Edwards, Okuda and Burzynski in replicating the presently claimed invention.

Nagatomo is also unlike the presently claimed invention. At most Nagatomo teaches the effects of tetrabutryate riboflavin on high energy phosphates in canine ischemic myocardium. Nagatomo does not teach or even hint at any of these claimed riboflavin derivatives of claim 1 in which method claims 9-12 require. It follows that Nagatomo cannot teach or suggest using a preparation containing these riboflavin derivatives. Therefore, Nagatomo is also unlike the presently claimed invention. Further combining Nagatomo with Edwards does not cure the deficiency of Edwards in replicating the presently claimed invention.

Therefore Edwards, Okuda, Chandra, Burzynski, McCarthy and Nagatomo, in whole or in combination, do not teach or suggest all of the limitations now required in the presently claimed invention.

Since the combined prior art references must teach all of the claimed limitations to render a claimed invention obvious, then Edwards, Okuda, Chandra, Burzynski, McCarthy and Nagatomo, in whole or in combination, cannot support an obviousness rejection to the presently claimed invention.

Accordingly, the examiner is respectfully requested to withdraw these obviousness rejections to the presently claimed invention.

For the reasons set forth above, the applicants respectfully submit that claims 1, 6-12, now pending in this application, are in condition for allowance over the cited references. Accordingly, the applicants respectfully request reconsideration and withdrawal of the outstanding rejections and earnestly solicit an indication of allowable

Application Serial No. 10/522,110
Reply to office action of May 14, 2008

PATENT
Docket: CU-4057

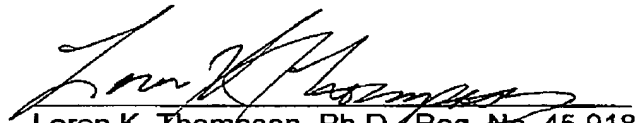
subject matter.

The applicants reserve the right to present the cancelled withdrawn claims in a divisional application.

This amendment is considered to be responsive to all points raised in the office action. Should the examiner have any remaining questions or concerns, the examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully submitted,

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